

# Re: Detection of Big Endian or Little Endian

Bob Quinn (rcq@TIAC.NET)  
Tue, 7 Apr 1998 22:33:16 -0400

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P.D. 7/04/1998  
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- Next message: Mustafa Buyukalpelli: "95 And NT stack"
- Previous message: James Johnson: "Re: Detection of Big Endian or Little Endian"

Hello James,

Be careful what you're testing for. The routine below tests whether a \*system\* stores values big endian byte order in memory.

There is no way to verify whether a \*value\* is in one or another byte order, that could indicate it needs swapping.

The correct and safe thing to do with multibyte values is to use htons/ntohs and htonl/ntohl (the host-to-net and net-to-host functions) on them ALL THE TIME. That way your code is portable, and you can rest assured the values are always stored properly for network transport.

As Warren mentioned, the XDR library used in ONC (Sun-compatible) RPC is used to do data translation for multi-platform support (I'm not sure about DCE RPC, as used on NT).

Regards,

--  
Bob Quinn  
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<http://www.sockets.com>

At 02:36 PM 4/7/97 -0700, James Johnson wrote:

>Sure there is:

>

>bool IsBigEdian()

>{

> int test = 1;

> char \*p = (char \*)&test;

>

> return !(\*p == 1);

>}

>

>This should work.

>

>At 06:15 PM 4/6/98 -0400, Huilai Zhang wrote:

>>Hi all,

>>

>>Is there a way (or function) to automatically detect whether the receiving  
>>packet is Big Endian or Little Endian ordered (assume there is an  
>>heterogeneous computing environment)?

>>

>>Thanks in advance.

>>

>>- H. Zhang

>>

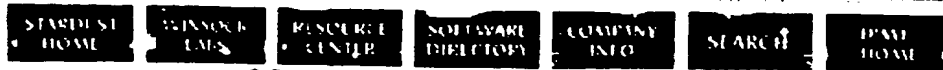
> ;

> cwd

; "Do or d not. There is

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```
> xor    ax, dx      ; no try." Yoda
> sub    ax, dx      ;
> mov    Power, ax   ; plexus seanet.com
```



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